Math 133 - Algebra for College Students – 3 Credit hours
Course Syllabus
Semester: Spring 2009

Class Meetings:
Day/Time:
Course Site:

Instructor:

MISSION STATEMENT

Southern University at Shreveport (SUSLA), an autonomous unit of the Southern University System A & M System, seeks to provide a quality education for its students, while being committed to the total community. This Institution awards certificates and associate degrees, prepares students for careers in technical and occupational fields, and offers courses and programs that are transferable to other colleges and universities. Dedicated to excellence in instruction and community service, this open enrollment institution promotes cultural diversity, provides developmental and continuing education, and seeks partnerships with business and industry. The University intends that all individuals should have the opportunity to receive educational experiences and related services, which are compatible with their varied interests, academic abilities, achievements, family backgrounds, motivations, needs, and goals.

CATALOG DESCRIPTION: MATH 133 - Algebra for College Students, Credit Algebra topics covered in this course are linear and quadratic equations and inequalities, lines and slopes, radicals and exponents, polynomial and rational functions, systems of equations, complex numbers and introduction to graphing techniques.

PREREQUISITE: MATH 092 or equivalent, or satisfactory score on the Placement Examination

TEXTBOOK: The text required for this course is Algebra for College Students, Margaret Lial, John Hornsby, and Terry McGinnis, 6th Edition

Course Goals/Objectives

1. Solve linear equations and inequalities equations
2. Graph linear equations
3. Compute the slope of a line
4. Write the equation of a line
5. Solve system of equations
6. Solve radical and exponential equations
7. Solve quadratic equations
8. Graphing techniques and complex

STUDENT LEARNING OUTCOMES
General Education:

The graduate from Southern University at Shreveport should be able to:

1. Demonstrate proficiency in written and oral communication by composing and presenting structured texts in a variety of oral and written forms according to purpose, audience, and occasion with implementation of thesis, supporting details, and idea development.
2. Solve problems by interpreting, analyzing, evaluating and applying known information received from statistical and other data, past experience, problem- solving techniques, inference, the scientific method, mathematical equations, graphics, etc., to make decisions, judgments, and predictions, constructing well-supported and sustained arguments to justify conclusions.
3. Effectively utilize various modes and media using technology such as computers, computer software applications, the Internet, and other technology to produce documentation, data and graphical presentations appropriate to various academic and professional arenas/venues.
4. Conduct research, synthesize and evaluate information to develop arguments and to organize evidence into a presentation using proper discipline-specific formats to cite and document primary and secondary sources.
5. Demonstrate professional and ethical behavior as required by discipline-specific codes of conduct and as needed in a diverse and global workforce or in the articulation to a four-year college or university program.

Student Learning Outcomes
Course

1. After completing this course, the student will be able to distinguish, between linear and quadratic equations.

2. After completing this course, the student will be able to read, understand, and solve linear and quadratic application problems by interpreting, analyzing, and evaluating real world problems.

3. After completing this course, the student will be able to analysis, interpret , and describe linear equations by being able to complete the following tasks:
    - Graph linear equations in two variables
    - Compute the slope of a line given two points on the line
    - Determine if two lines are parallel or perpendicular
    - Write an equation of a line given certain conditions
    - Read, understand and explain application problems.

4. After completing this course, the student will be able to analysis, interpret, and describe system of linear equations by being able to complete the following tasks:

   - Solve a system of linear equations by elimination and substitution.
   - Solve word problems using systems of linear equations in two variables.

5. After completing this course, the student will be able to analysis, interpret, and describe radicals by able to complete the following tasks:

   - Reduce radical expressions to simplest form.
   - Perform operations with exponents and radicals.

6. The student will be able to solve quadratic equations by factoring, extracting square roots, completing the square, and using the quadratic formula.

COURSE OUTLINE

A. Chapter Three: Graphs, Linear Equations, and Functions
   3.1 The Rectangular Coordinate System
   3.2 The Slope of a Line
   3.3 Linear Equations in Two Variables
   3.4 Linear Inequalities in Two Variables
   3.5 Introduction to Functions

B. Chapter Four: Systems of Linear Equations
   4.1 Systems of Linear Equations in Two Variables
   4.2 Systems of Linear Equations in Three Variables
   4.3 Applications of Systems of Linear Equations
   4.4 Solving Systems of Linear Equations by Matrix Methods

C. Chapter Eight: Roots, Radicals, and Root Functions
   8.1 Radical Expressions and Graphs
   8.2 Rational Exponents
   8.3 Simplifying Radical Expressions
   8.4 Adding and Subtracting Radical Expressions
   8.5 Multiplying and Dividing Radical Expressions
   8.6 Solving Equations with Radicals
   8.7 Complex Numbers

D. Chapter Nine: Quadratic Equations and Inequalities
   9.1 The Square Root Property and Completing the Square
   9.2 The Quadratic Formula
   9.3 Equations Quadratic in Form
   9.4 Formulas and Further Applications
   9.5 Graphs of Quadratic Equations
   9.6 More about Parabolas; Application
   9.7 Quadratic and Rational Inequalities

GRADING

Final grades will be determined by the number of points a student earns from quizzes, homework and examinations will determine final grades.

The percentage scale is as follows:

90% - 100% = A

80% - 89% = B

70% - 79% = C

60% - 69% = D

0% - 59% = F

ATTENDANCE

Three unexcused absentees are allowed. An absentee can only be removed when proper excuses have been presented and appropriate make-up work has been done. The student is referred to “Class Attendance Regulations” in the University Catalog.

STUDENT RESPONSIBILITIES

A. Each student must have a textbook and/or material.

B. Each student must keep a notebook.

C. Each student must attend class on time.

D. Assignments must be clearly and neatly written on one side of paper only.

E. Do not turn in assignments on paper with jagged edges.

A conference schedule as well as a Tutorial Laboratory schedule will be posted.

BEHAVIORAL OBJECTIVES

1. At the conclusion of Chapter Three, the student will graph linear equations in two variables, compute the slope of a line given two points on the line, determine if two lines are parallel or perpendicular, and write an equation of a line given certain conditions with at least 70% accuracy measured by a classroom test.

2. At the conclusion of Chapter Four, the student will solve systems of linear equations by elimination, solve systems of linear equations by substitution, and solve word problems using systems of linear equations in two variables, solve systems of three linear equations in three variables, determine if a system of linear equations is dependent or inconsistent with at least 70% accuracy measured by a teacher- made test.

3. At the conclusion of Chapter Eight, the student will reduce radical expressions to simplest form, perform operations with exponents and radicals, and perform operations with complex numbers with at least 70% accuracy measured by a classroom test.

4. At the conclusion of Chapter Nine, the student will solve quadratic equations by factoring, extracting square roots, completing the square, and using the quadratic formula; solve word problems leading to quadratic equations; find the solution set of a radical equation, and solve quadratic-type equations with at least 70% accuracy measured by a classroom test.

Paid Receipt

Officially Enrolled: A student is required to show the instructor a paid receipt on the first day of class. A student is not officially enrolled in class unless he or she has a paid class schedule. It is the student's responsibility to ensure that all steps of the registration process have been completed before attending class.

Disabilities Policy

Southern University at Shreveport, Louisiana is in compliance with the regulations of the American with Disabilities ACT. The coordinator for ADA is assigned to the Office of Student Affairs. Anyone with special needs should contact the Vocational and Placement Center located in the Counseling Center in the Fine Arts building.

Academic Dishonesty Policy

Plagiarism, cheating, and any other form of academic dishonesty are prohibited. Any student who is caught cheating on a test, exam, quiz or assignment will be given a grade of zero (0) for the specific evaluation. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work.